The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
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22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Previously Presented) A method for detecting, in a sample, the presence of a modifying enzyme which covalently modifies a polypeptide, the method comprising the steps of:

a) providing a polypeptide pair comprising a first polypeptide and a second, binding partner polypeptide, capable of associating with said first polypeptide, wherein said second, binding partner polypeptide is not a phospho-specific antibody, and wherein the association of the polypeptides is detectable, and covalent modification of at least one of the polypeptides results in modulation of the association and wherein said covalent modification comprises one of the group consisting of phosphorylation, acylation, glycosylation, ubiquitination, prenylation, sentrinization, and ADP-ribosylation;

b) providing a modifying group substrate, wherein said substrate, in the presence of a modifying enzyme, results in the covalent modification of said first polypeptide or said second binding partner polypeptide;

c) immobilizing the first polypeptide to a physical support;

d) contacting said immobilized polypeptide and said second binding partner polypeptide in the presence of said sample and said modifying group substrate; and

e) measuring the association of the second, binding partner polypeptide to the first polypeptide, thereby determining the covalent modification of at least one of said polypeptides, whereby the presence of said modifying enzyme is detected; wherein said association is measured by monitoring the molecular mass of the binding partner by surface plasmon resonance.

43. (Previously Presented) A method for detecting, in a sample, the presence of a modifying enzyme which covalently modifies a polypeptide, the method comprising the steps of:

a) providing a polypeptide pair comprising a first polypeptide and a second, binding partner polypeptide, capable of associating with said first polypeptide, wherein said second, binding partner polypeptide is not a phospho-specific antibody, and wherein the association of the polypeptides is detectable, and covalent modification of at least one of the polypeptides results in modulation of the association and wherein said covalent modification comprises one of the group consisting of phosphorylation, acylation, glycosylation, ubiquitination, prenylation, sentrinization, and ADP-ribosylation;

b) providing a modifying group substrate, wherein said substrate, in the presence of a modifying enzyme, results in the covalent modification of said first polypeptide or said second binding partner polypeptide;

c) immobilizing the first polypeptide to a physical support;

d) contacting said immobilized polypeptide and said second binding partner polypeptide in the presence of said sample and said modifying group substrate; and

e) measuring the association of the second, binding partner polypeptide to the first polypeptide, thereby determining the covalent modification of at least one of said polypeptides, whereby the presence of said modifying enzyme is detected; wherein said association is measured by monitoring the molecular mass of the binding partner by scintillation proximity assay.

44. (Previously Presented) A method for detecting, in a sample, the presence of a modifying enzyme which covalently modifies a polypeptide, the method comprising the steps of:

a) providing a polypeptide pair comprising a first polypeptide and a covalently modified second, binding partner polypeptide capable of associating with said first polypeptide, wherein said second, binding partner polypeptide is not a phospho-specific

antibody, and wherein said association of the polypeptides is detectable, and wherein removal of the covalent modification from said second, binding partner polypeptide by a modifying enzyme results in modulation of the association and wherein said covalent modification comprises one of the group consisting of phosphorylation, acylation, glycosylation, ubiquitination, prenylation, sentrinization, and ADP-ribosylation;

b) immobilizing the first polypeptide to a physical support;

c) contacting said immobilized polypeptide and said second binding partner polypeptide in the presence of said sample; and

d) measuring the association of the second, binding partner polypeptide to the first polypeptide, thereby determining the removal of said covalent modification from said second binding partner polypeptide, whereby the presence of said modifying enzyme is detected; wherein said association is measured by monitoring the molecular mass of the binding partner by surface plasmon resonance.

45. (Previously Presented) A method for detecting, in a sample, the presence of a modifying enzyme which covalently modifies a polypeptide, the method comprising the steps of:

a) providing a polypeptide pair comprising a first polypeptide and a covalently modified second, binding partner polypeptide capable of associating with said first polypeptide, wherein said second, binding partner polypeptide is not a phospho-specific antibody, and wherein said association of the polypeptides is detectable, and wherein removal of the covalent modification from said second, binding partner polypeptide by a modifying enzyme results in modulation of the association and wherein said covalent modification comprises one of the group consisting of phosphorylation, acylation, glycosylation, ubiquitination, prenylation, sentrinization, and ADP-ribosylation;

b) immobilizing the first polypeptide to a physical support;

c) contacting said immobilized polypeptide and said second binding partner polypeptide in the presence of said sample; and

d) measuring the association of the second, binding partner polypeptide to the first polypeptide, thereby determining the removal of said covalent modification from said second binding partner polypeptide, whereby the presence of said modifying enzyme is

detected; wherein said association is measured by monitoring the molecular mass of the binding partner by scintillation proximity assay.